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Attorney Docket No. 47, 958 - CPA (70000)

**THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

APPLICANT: Katsuya Nakagawa

EXAMINER: Nguyen, J.

U.S.S.N.: 09/006,363

GROUP: 2673

FILED: January 13, 1998

FOR: VIRTUAL KEYBOARD

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By:

William J. Daley, Jr.

**REPLY BRIEF TO EXAMINER'S ANSWER; 37 C.F.R. 1.192(b)(1)**

Sir:

The following is in reply to the Examiner's Answer mailed April 2, 2004, in connection with the Appeal of the above-referenced application.

This Reply Brief is being filed within two- (2) months of the mailing date of the Examiner's Answer, 37 C.F.R. §1.193(b)(1). As such, this Reply Brief is considered timely filed.

The following replies to certain remarks made in the Examiner's Answer as to specific topics and/ or references.

### **Drawings**

The Examiner's Answer restates an objection raised regarding figure 1 of the subject application which indicates that this figure should be amended to include a prior art legend. The objection to figure 1 was raised for the first time in the Final Office Action. As Applicant appealed the final rejection of the claims, a Response to the Office Action was not made. Applicant, however, acknowledges, that an amended drawing figure will be submitted so that Figure 1 includes a prior art legend if prosecution is re-opened and/ or claims are allowed.

### **Examiner's Assertions Regarding Ouellette et al. Reference**

The language being referred to in column 1, lines 45-63 of Ouellette et al. [USP 5,581,234; "Ouellette"] is as follows:

In known simulated keyboards of this type, each key of the simulated keyboard is represented by a discreetly-defined area bounded by a frame. In each key frame there appears an indication of an alpha-numeric character, or a character representing a punctuation or other symbol or function. The simulated keyboard is visible through the touch-sensitive area overlaying the display.

For typing on the simulated keyboards, the user the touch-sensitive-screen in the same fashion that a typist uses a conventional typewriter. The "touches" on the display cause the generation of a coded electrical signals corresponding to the locations that are touched, and thereby representing the displayed characters (e.g., capital or lower cases depending upon whether the displayed shift key is touched) or functions selected by the user. The coded electrical signals then are processed by the computer in the same manner that it

would process the electrical signals generated by a conventional keyboard device.

As is clear from the following discussion, the foregoing excerpt from Ouellette does not specifically describe or describe in detail the specific actions or functions or order of the touching of the simulated keys taken by the user when using the conventional simulated keyboard referred to; except that it is stated that the “user touches the touch-sensitive-screen in the same fashion that a typist uses a conventional typewriter” and that “ ‘*touches*’ on the display causes the generation of code electrical *signals* corresponding to the locations that are touched” by the user. It also is clear that the foregoing excerpt from Ouellette does not specifically describe the structure of the so-called conventional simulated keyboard, however, it appears that the rejection assumes that the touch screen panel described in the specification of Ouellette corresponds to the structure of a conventional panel being referred to in the Background section of Ouellette. In sum, and as further described below, the rejection is based basically on a structure, function and ordering of screen touching that is believed to be conjectured from that disclosed in Ouellette.

As explained by Applicant the transparent pressure sensitive panel embodied in the present invention includes a large number of wires that extend in two different directions, the directions being essentially orthogonal to each other, and that all of the wires that extend in one direction (*e.g.*, the X-direction) are connected to a single pair of electrodes and all of the wires that extend in the other direction (*e.g.*, the Y-direction) also are connected to a single pair of electrodes. Such a construction necessarily means that an electrical signal is outputted whether

one area is touched or more than one area is being touched at one time. Moreover, although the electrical signal is representing the area being touched when one area is being touched, it is not normally representing the area being touched when more than one area is being touched. While additional electrical signals may be outputted in a time sequence, this does not mean that signals are being generated for each area being pushed when more than one area is being pushed or touched at the same time. It should be noted that this is consistent with the discussion in col. 5, lines 4-10 of Ouellette that is referred to by the Examiner. Therefore, and contrary to the explicit language being referred to in Ouellette *touches* on the transparent pressure-sensitive panel of the present invention *do not* cause the generation of code electrical *signals corresponding to the locations that are touched by the user (i.e., a signal is not outputted for each area being touched when more than one area is being touched at the same time)*.

Such a statement or assertion is inherently inconsistent with the structure of the transparent pressure sensitive panel embodied in the present invention. This is explicitly described in the subject application and has been indicated in Applicant's Responses, the filed Declaration and both Appeal Briefs.

It also is clear that the Examiner is relying upon the explicit language from Ouellette that the "user touches the touch-sensitive-screen in the same fashion that a typist uses a conventional typewriter" as also describing a specific sequence of operations and functions and thus, also inherently disclosing a function or operational characteristic of the virtual keyboard of the present invention. Applicant respectfully disagrees.

In the virtual keyboard of the present invention and as being claimed by Applicant, there is include a processor for receiving information of positions detected and sent in a time sequence from the pressure sensitive panel when a special key is first pushed and thereafter when a special key and a general key are both pushed at the same time. Further, the processor identifies the position of the pushed general key according to the received position information of the position of the first pushed special key and thereafter the pushed special key and general key. Based on this the processor outputs a code corresponding to the pushed special key and general key that corresponds to the identified position.

Applicant discovered that there is a relationship between the position of the pushed special key and the general key and the positions detected in a time sequence from the pressure sensitive panel, when a special key and a general key are pushed at the same time. This allows a computation to be performed using position information outputted by the transparent pressure sensitive panel embodied in the present invention including the position information generated when the special key and general key are pushed at the same time to determine the position of the pushed general key. Using conventional techniques, such electrical signals when both the general key and special key are being pushed at same time would be unusable to determine the position of the pushed general key.

It is clear from the explicit language cited to in Ouellette, that the touch-sensitive-screen outputs code signals of the areas being touched and as such, there is no indication whatsoever in Ouellette that the simulated keyboard described therein involves further processing of any

electrical signal(s) from the touch-sensitive screen. As such, the rejection must be necessarily based on the assumption that Ouellette also inherently discloses a structure for further processing of electrical signals in order to process signals generated when more than one area of the touch sensitive screen is being touched at the same time.

Applicant also respectfully submits that there has been no showing by the Examiner why the processing functionalities of the claimed invention is necessarily and inherently embodied in the language cited to in Ouellette, that the allegedly inherent characteristics necessarily flow from the teachings of Ouellette and moreover that the missing descriptive matter is necessarily present in simulated keyboard described in Ouellette.

Rather, the Examiner appears to assume that because Ouellette provides that the user touches the touch-sensitive screen on the displayed keys in the same fashion that a typist uses for a conventional typewriter (col. 1, lines 52-54) and because Ouellette provides that the coded electrical signals then are processed by the computer in the same manner that it would process the electrical signals generated by a conventional keyboard input device (col. 1, lines 60-63), then Ouellette inherently discloses the means, mechanisms, structures, functions and operational parameters that could possibly care this out. In other words, even though Ouellette does not describe anywhere, much less provide an enabling disclosure of, how the so-called conventional simulated keyboard is supposed to determine what capital letter to output, in particular if the areas corresponding to both the shift key and the letter key are being touched at the same time, it is asserted that Ouellette inherently discloses this. In sum, the assertion forming the basis of the

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rejection amounts to a reconfiguring of the conventional simulated keyboard disclosed in Ouellette based on Applicant's disclosure and not on any inherent teaching, disclosure or suggestion found in Ouellette of such a reconfiguration and moreover that such a reconfiguration would be reasonably successful.

Also of particular interest regarding the foregoing assumption of the Examiner are the Examiner's prior remarks in the Office Action mailed May 23, 2000, in which the Examiner had formulated a rejection on the stated basis that the Examiner could not understand how the middle position or the furthest returning position could be figured or determined without knowing the position of the general key (one of the ends). As to how the present invention accomplished this is described in the subject application and was further described in detail in Applicant's Response to Office Action dated October 23, 2000. The materials included with this Response to further explain the process with reference to illustrative examples, are contained in Appendix B of the Appeal Brief dated February 4, 2004.

In sum, Applicant provided an explanation as to how the present invention as described in the subject application has the capability to determine a middle position located between two end positions without having to know the positions of both ends. Moreover, the illustrative examples with Applicant's explanation as well as the subject application also discloses and teaches how the presently claimed invention using the acquired position information can determine the position of one of the ends using the position of the special key and the acquired position data acquired in a time sequence.

In spite of this, the Examiner has assumed and argued that the exceedingly brief discussion in Ouellette provides an enabling disclosure of the present invention and also that this brief discussion nonetheless discloses essential features of the present invention even though there is no specific disclosure or description anywhere in Ouellette of the features of the present invention nor is there anywhere found a discussion similar to the explanation provided by Applicant in the Response referred to above. Applicant also submits that the Examiner's remarks contained in the October 23, 2000 Office Action provide a separate and adequate basis as to why the Ouellette reference cannot disclose, describe, teach or suggest in any fashion the features of the presently claimed invention.

As indicated in the MPEP 2112, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1995, 1957 (Fed. Cir. 1993). The CCPA also has reversed a rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art. *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981).

The Federal Circuit also has indicated that "[t]o establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Roberston*, 169 F.3d 743,



745, 49 USPR2d 1949, 1950-51 (Fed. Cir. 1999). It should be noted that Applicant's arguments have been grounded on the fact that the asserted inherent disclosure would not have been recognized by those of ordinary skill in the art.

In addition, and as the Board of Patent Appeals and Interferences has indicated, "[i]n relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). Such a showing has not be provided, and moreover no showing has been made that contradicts the evidence proffered by Applicant in the submitted Declaration.

**Examiner's Assertions Regarding Ouellette et al. and Dunthorn Reference**

As to the assertion that Dunthorn teaches at col. 4, lines 45-68 that, each button's position is identified (*i.e.*, the position of the second button is determined) in order to actuate a corresponding function to simultaneous touched positions, Applicant respectfully disagrees.

The discussion referred to indicates that on a touch screen or touch pad, actual or assigned push buttons are usually defined by establishment of a function (push button) at a particular location and that usually, visual information is provided to identify each actual button's position and function. Therefore, and contrary to the Examiner's assertion each actual button's position and function are identified by the *visual information* being provided on the display. This has thing to do with determining the position of the second pushed button nor the

process of generating and outputting coded signals corresponding to a pushed combination of keys.

The cited language also provides, that touch screens in particular are often implemented so that the visual information presented at the screen changes as required in order to match the redefined button positions, however, it is further indicated that with any given visual presentation the location of the each actual push button will be fixed. In other words, the arrangement of the push buttons and/ or the functions to be implemented can be changed as required to suit the needs of a given application. Once changed, however, the display and position remains fixed until changed again for another application.

As to the assertion that motivation to combine is provided because of the benefit of using Dunthorn's teaching above in the device of Ouellette would extend the functionality of the keyboard, as taught and found in the Dunthorn reference at col. 2, lines 57-60 thereof, Applicant respectfully disagrees. The language referred to in Dunthorn states that it is an object of the Dunthorn invention to extend the functionality of a touch screen or touch pad orthogonal data input devices to match that achievable with computer mice, tablets, light pens and the like. This object to make a touch screen function match that achievable by a computer mouse, hardly provides a proper motivation for combining or using the teachings of Dunthorn so as to modify the simulated keyboard disclosed and taught in Ouellette.

As also indicated herein, in an Office Action mailed May 23, 2000 the Examiner stated that that one could not figure out how to determine the middle position or the furthest returning

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without knowing the position of both the special key and the general key. As also indicated herein, the discussion referred to in Ouellette as support for the rejection does not provide an enabling disclosure of essential features of the presently claimed invention. As also indicated above, Dunthorn does not provide a disclosure of essential features of the presently claimed invention and more particularly Dunthorn does not disclose, describe nor teach how to determine the middle position or the furthest returning without knowing the position of both the special key and the general key. As such, Applicant respectfully submits that neither reference discloses, describes, teaches or suggests features of the presently claimed invention and more particularly. As such, Applicant respectfully submits that the Examiner's argument that it would have been obvious to one skilled in the art to obtain the claimed invention based on the disclosures and teachings of the two references must necessarily fail.

There is no fee required for the submission of the within Reply Brief, however, if for any reason a fee is required for the consideration of the within Brief, a fee paid is inadequate or credit

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is owed for any excess fee paid, the Commissioner is hereby authorized and requested to charge  
Deposit Account No. **04-1105**.

Respectfully submitted,  
EDWARDS & ANGELL, LLP

Date: June 2, 2004

By: \_\_\_\_\_



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